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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/534,338

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Andreas Goeke

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EXAMINER

PEPITONE, MICHAEL F

ART UNIT

PAPER NUMBER

1796

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01/07/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/534,338	Applicant(s) GOEKE, ANDREAS	
	Examiner MICHAEL PEPITONE	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-8 is/are rejected.
- 7) ☒ Claim(s) 2 and 9-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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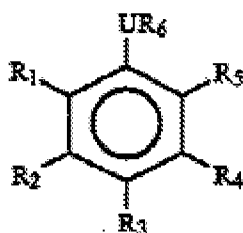
DETAILED ACTION***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-4, and 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Köhler *et al.* (US 5,387,718).

Regarding claim 1: Köhler *et al.* teaches alkylphenyl alkyl thioethers having the general formula:



where U represents O or S; and

R₁-R₆ each independently represent an alkyl or aryl group, but R₁-R₅ may each independently represent a functional group other than these, including, e.g., but not limited to, —COOR, —NO₂, —NH₂, —O—CH₂—CH₂—OH, —OH, —CHO, or -halogen; further

R₁-R₅ may be bridged by suitable bifunctional substituents, such as, e.g., —(CH₂)_x—, or —(CH₂)_x—Z—(CH₂)_y— (where Z represents a hetero atom; x=0-7, and y=0-7), or preferably unsaturated substituents such as are characteristic of anellated ring systems, e.g. (but not limited to) naphthyl, phenanthryl, anthracenyl, quinolyl, isoquinolyl, or indolyl.

(1:15-42); wherein U=S,

R₆=Me, R₃=alkyl having a fused C₀₋₇ cycloalkyl ring R₁=R₂=R₄=R₅=H (2:60-67; 3:6-12; 4:48-46; 6:50-59).

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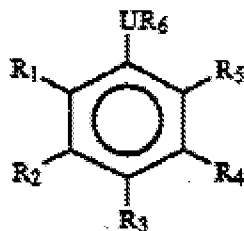
The Office realizes that all the claimed effects or physical properties are not positively stated by the reference. However, the reference teaches all of the claimed reagents. Therefore, the claimed effects and physical properties, i.e. spicy and anisic odor notes, would implicitly be achieved by a composition with all the claimed ingredients. If it is the applicants' position that this would not be the case: (1) evidence would need to be presented to support applicant's position; and (2) it would be the Office's position that the application contains inadequate disclosure that there is no teaching as to how to obtain the claimed properties and effects with only the claimed ingredients.

Regarding claims 3-4 and 6-7: Köhler *et al.* teaches alkylphenyl alkyl thioethers as fragrances [instant claims 3-4] (5:42-45) and stabilizers for oils used in food and feed [instant claims 6-7] (5:42-45).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Köhler *et al.* (US 5,387,718).

Regarding claim 8: Köhler *et al.* teaches alkylphenyl alkyl thioethers having the general formula:

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where U represents O or S; and

R_1 - R_6 each independently represent an alkyl or aryl group, but R_1 - R_5 may each independently represent a functional group other than these, including, e.g., but not limited to, $-\text{COOR}$, $-\text{NO}_2$, $-\text{NH}_2$, $-\text{O}-\text{CH}_2-\text{CH}_2-\text{OH}$, $-\text{OH}$, $-\text{CHO}$, or -halogen; further

R_1 - R_5 may be bridged by suitable bifunctional substituents, such as, e.g., $-(\text{CH}_2)_x-$, or $-(\text{CH}_2)_x-\text{Z}-(\text{CH}_2)_y-$ (where Z represents a hetero atom; $x=0-7$, and $y=0-7$), or preferably unsaturated substituents such as are characteristic of anellated ring systems, e.g. (but not limited to) naphthyl, phenanthryl, anthracenyl, quinolyl, isoquinolyl, or indolyl.

(1:15-42); wherein U=S,

$R_6=\text{Me}$, $R_3=\text{alkyl}$ having a fused C_{0-7} cycloalkyl ring $R_1=R_2=R_4=R_5=\text{H}$ (2:60-67; 3:6-12; 4:48-46; 6:50-59).

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Köhler *et al.* (US 5,387,718) as applied to claim 4 above, and further in view of Grab *et al.* (EP 1264547).

Regarding claim 5: Köhler *et al.* renders the basic composition obvious [as set forth above with respect to claim 4].

Köhler *et al.* does not teach household product containing alkylphenyl alkyl thioethers. However, Grab *et al.* teaches flavor and fragrance compositions {household products} containing 1-mercapto-1-phenylalkanes which have a natural spicy character (§ 1-2). Köhler *et al.* and Grab *et al.* are analogous art because they are concerned with a similar technical

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difficulty, namely the preparation of spicy fragrances composed of aryl thioethers. At the time of invention a person of ordinary skill in the art would have found it obvious to have combined household products containing spicy fragrances composed of aryl thioethers, as taught by Grab *et al.* in the invention of Köhler *et al.*, and would have been motivated to do so since Grab *et al.* suggests that such aryl thioethers provide household products with a clear natural spicy character without any attendant dominant roasted note or accompanying pungent and putrid notes (§ 5).

Allowable Subject Matter

Claims 2 and 9-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

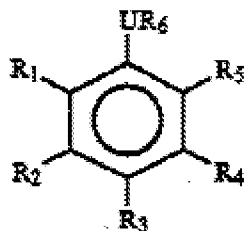
The following is a statement of reasons for the indication of allowable subject matter: Köhler *et al.* does not specifically disclose the 1-cyclo{C₃₋₆}alkylmethyl -4-methylsulfanyl-benzenes of instant claims 2 and 9. Black *et al.* (US 6,222,048) discloses cyclopentyl-(4-(methylthio)phenyl)-methanone, prepared by a Friedel-Crafts acylation of thioanisole with cyclopentanecarbonyl chloride {precursor to 1-cyclopentylmethyl -4-methylsulfanyl-benzene}, but there would be no motivation to reduce the ketone to afford 1-cyclopentylmethyl -4-methylsulfanyl-benzene.

Response to Arguments

The rejection of claims 1, 3-8 based on Köhler *et al.* (US 5,387,718) and Grab *et al.* (EP 1264547) is maintained for reason of record and the following response.

Köhler *et al.* (US '718) discloses alkylphenyl alkyl thioethers having the general formula:

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where U represents O or S; and

R_1 - R_6 each independently represent an alkyl or aryl group, but R_1 - R_5 may each independently represent a functional group other than these, including, e.g., but not limited to, $-\text{COOR}$, $-\text{NO}_2$, $-\text{NH}_2$, $-\text{O}-\text{CH}_2-\text{CH}_2-\text{OH}$, $-\text{OH}$, $-\text{CHO}$, or -halogen; further

R_1 - R_5 may be bridged by suitable bifunctional substituents, such as, e.g., $-(\text{CH}_2)_x-$, or $-(\text{CH}_2)_x-\text{Z}-(\text{CH}_2)_y-$ (where Z represents a hetero atom; $x=0-7$, and $y=0-7$), or preferably unsaturated substituents such as are characteristic of anellated ring systems, e.g. (but not limited to) naphthyl, phenanthryl, anthracenyl, quinolyl, isoquinolyl, or indolyl.

(1:15-42); wherein U=S,

$R_6=\text{Me}$, $R_3=\text{alkyl}$ having a fused C_{0-7} cycloalkyl ring $R_1=R_2=R_4=R_5=\text{H}$ (2:60-67; 3:6-12; 4:48-46; 6:50-59). Spicy and anisic odor notes would implicitly be achieved from structures corresponding to instant claim 1.

While the preferred embodiments {ex. 1-2 and 4-7} do not specifically depict the structures of instant claims 1 and 8, the general formula discloses such compounds. If one of ordinary skill in the art is able to "at once envisage" the specific compound within the generic chemical formula, the compound is anticipated. One of ordinary skill in the art must be able to draw the structural formula or write the name of each of the compounds included in the generic formula before any of the compounds can be "at once envisaged." One may look to the preferred embodiments to determine which compounds can be anticipated. *In re Petering*, 301 F.2d 676,

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133 USPQ 275 (CCPA 1962). The reference must be considered for all that it discloses and must not be limited to preferred embodiments [see MPEP 2123].

Köhler *et al.* (US '718) discloses alkylphenyl alkyl thioethers {compounds from the general formula} to be used as fragrances (5:42-45).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Grab *et al.* (EP '547) was relied on for flavor and fragrance compositions {household products} containing 1-mercapto-1-phenylalkanes which have a natural spicy character (¶ 1-2) and such compounds provide household products with a clear natural spicy character without any attendant dominant roasted note or accompanying pungent and putrid notes (¶ 5).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL PEPITONE whose telephone number is (571)270-3299. The examiner can normally be reached on M-F, 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on 571-272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo/
Supervisory Patent Examiner, Art Unit 1796

MFP
22-December-08